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Appendix B

Emergency Preparedness Significance Determination Process

1.0 INTRODUCTION

The framework of the Emergency Preparedness (EP) Cornerstone is described in SECY-99-007 and SECY-99-007a. The Cornerstone Objective and Performance Expectation are the bases for the inspection program and performance indicators. They are repeated here for convenience.

The Emergency Preparedness Cornerstone Objective is to: "Ensure that the licensee is capable of implementing adequate measures to protect the public health and safety in the event of a radiological emergency."

The Objective is supported by a Performance Expectation: "Demonstrate that reasonable assurance exists that the licensee can effectively implement its emergency plan to adequately protect the public health and safety in the event of a radiological emergency."

Licensee performance in this cornerstone is assessed by considering the relationship of performance indicators (PIs) with regard to thresholds and the significance of inspection findings. The significance determination process (SDP) provides a method to place inspection findings in context for risk significance in a manner that allows them to be combined with PI results. This information is used to determine the level of NRC engagement in accordance with (IAW) the Reactor Oversight Process Action Matrix (found in Inspection Manual Chapter 0305).

Inspection Manual Chapter 0612 contains criteria for determining which inspection issues should be evaluated through the SDP. The EP SDP is structured such that any finding that enters the SDP will be at least green. The EP SDP is designed such that the significance of a finding reflects the impact on public health and safety should an accident occur.

During the development of the EP Cornerstone, the most risk significant EP PROGRAM ELEMENTS were identified as distinct from other EP PROGRAM ELEMENTS. These development efforts were performed by a group of EP subject matter experts, including industry stakeholders, with input from members of the public. The EP SDP methodology recognizes findings in the identified risk significant elements as more significant than findings in other PROGRAM ELEMENTS.

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10 CFR Part 50 codifies a set of EP planning standards in 10 CFR 50.47(b) and supporting requirements in Appendix E to Part 50. The SDP logic identifies the loss of a planning standard function as more significant than noncompliance with administrative REGULATORY REQUIREMENTS. The more risk significant elements of EP are a subset of the EP planning standards and supporting requirements. A loss of function of the more risk significant planning standards results in a finding of greater significance than the loss of function of the other planning standards (i.e., a yellow finding vice a white finding.) The stratification of the 10CFR50.47(b) planning standards and supporting requirements in Appendix E to Part 50 are as follows:

- risk significant planning standards (RSPS) 10 CFR 50.47(b)(4), (5), (9) and (10) and related sections of Appendix E.
- planning standards (PS) 10 CFR 50.47(b)(1), (2), (3), (6), (7), (8), (11), (12), (13), (14), (15), and (16) and related sections of Appendix E, and
- other EP related regulations which include various sections of Appendix E not identified in the specific PS sections, 10 CFR 50.54(q), 50.54(t), Emergency Plan and other regulatory commitments.

While the EP SDP assigns a color-coded safety significance to findings, it should be understood that a green finding (very low safety significance) does not mean that the performance is acceptable. The finding may represent a violation of a regulatory requirement. The green determination means that the safety significance of the finding is very low and correction of the item is considered to be within the "licensee response band."

2.0 DEFINITIONS AND GENERAL GUIDANCE

~~(Put the PS and RSPS definitions in alphabetical order with the other defined terms.~~

~~Add Licensee Response Band definition. Capitalize all defined words when used throughout the text to promote consistent use).~~

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Planning Standard (PS) - Sixteen emergency preparedness planning standards found in 10 CFR 50.47(b). Includes the Risk Significant Planning Standards and related sections of Appendix E to 10 CFR 50.

Risk Significant Planning Standard (RSPS) - Any one of the following four Planning Standards found in 10 CFR 50.47(b): 10 CFR 50.47(b)(4), (5), (9) and (10). Includes the related sections of Appendix E to 10 CFR 50.

2.1 Definitions (alphabetical order)

- a. CRITIQUE - ~~All observed or documented aspects of drill or exercise assessment. A finding in this area means that there was a WEAKNESS in a drill or exercise and licensee evaluators failed to identify it. This last sentence should be moved to the CRITIQUE PROBLEMS definition.~~

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- b. CRITIQUE PROBLEM - CRITIQUE did not identify a drill or exercise WEAKNESS.
- c. CRITIQUE REQUIREMENTS - Addressed in Planning Standard (PS) 10 CFR 50.47(b)(14) and in Appendix E, Section IV.F.2.g.
- d. DEGRADATION OF RSPS FUNCTION - PROGRAM ELEMENTs are not adequate or not in compliance, but the function of the PS, though degraded, is still met. It may be that (1) certain Plan commitments are not met, (2) the Plan is less than adequate, (3) implementing procedures are not effective, or (4) program design is not fully adequate, but if the PROGRAM ELEMENT is implemented as designed, it would meet the intended function of the RSPS. "Degradation of RSPS function" has been incorporated into the EP SDP to allow an intermediate level of significance ~~(Remove this examples and introduce explanation to the flow charts)~~, to be determined where appropriate. Examples of degradation of RSPS function are given for each RSPS in Sections 4.4, 4.5, 4.9 and 4.10 of this Appendix. This is a subset of a "FAILURE TO COMPLY."
- e. FAILURE TO COMPLY - A program is in non-compliance with a regulatory requirement that is more than minor (as determined by Manual Chapter 0612).
- f. FAILURE TO IMPLEMENT - FAILURE TO COMPLY with REGULATORY REQUIREMENTS during an actual event. It is a failure in the implementation only of PROGRAM ELEMENTS. Most likely it is the result of personnel error. In this case, the PROGRAM ELEMENT is adequate as designed and, if implemented as designed, the program would meet the PS function. But, a "FAILURE TO IMPLEMENT" is not always a result of personnel error and may reveal that a PROGRAM ELEMENT itself is not adequate. Inspection is appropriate to determine if there is a loss of a PS function. Resulting issues would be assessed for significance IAW the criteria for a loss of the PS function.
- g. FULL SCALE DRILL OR EXERCISE - Multiple ERFs participating or simulated with a team of evaluators. It is not limited to the evaluated biennial exercise.
- h. INSPECTION CYCLE - The period of time between, and including, sequential biennial evaluated exercises.
- i. ~~KNEW OR SHOULD HAVE KNOWN - (Need to ensure that this definition is consistent with regulatory definition.)~~ The licensee or a licensee representative should have been able to ascertain a problem existed. If an activity (e.g., a surveillance) should have identified the problem, but did not, or the results of the activity were available but not acted on, the

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licensee "should have known" about the problem. It should be assumed that the problem occurred at the time of its discovery (i.e., "knew") unless there is firm evidence, based on a review of relevant information such as equipment history and the cause of the problem, to indicate that the problem existed previously (i.e., "should have known").

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- j. **LOSS OF PLANNING STANDARD (PS) FUNCTION** ~~(Delete these words and fixing Sheet 1 flowchart to be consistent)~~ - PROGRAM ELEMENTS are not adequate, are in non-compliance with the PSs of 10 CFR 50.47(b) or otherwise not functional to such an extent that the function of the PS is not available for emergency response. It may be that the Plan commitments are not met or are inadequate, implementing procedures are inadequate, program design is inadequate, training is inadequate, etc. The result is that if the PROGRAM ELEMENT was implemented as designed, or personnel are not capable of implementing the PROGRAM ELEMENT, the PS function would not be met or personnel are not capable of implementing the PROGRAM ELEMENT. This is a subset of a "FAILURE TO COMPLY."

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~~(Add the following text) (Missing a timeliness goal or poor performance may indicate a problem for review, but in itself is not sufficient to establish a loss of PS function.)~~

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- k. **PLANNING STANDARD (PS) FUNCTION** - Defined for each PS. It is not a restatement of the regulations, but rather identifies the significant function of the PS. All regulations must be complied with, but a PS FUNCTIONAL failure may have greater significance than a failure to meet other REGULATORY REQUIREMENTS.

~~PROGRAM ELEMENTS - The criteria (contained in NUREG-0654/FEMA-REP-1 or within the licensee's Emergency Plan) that provides specific acceptable methods for complying with the planning standards set forth in 10 CFR 50.47. Usually, the failure of a single PROGRAM ELEMENT does not constitute a failure of the function of the planning standard.~~

- l. **REGULATORY REQUIREMENT** - Any EP related requirement, including the planning standards of 10 CFR 50.47(b), Appendix E to 10 CFR 50, the Emergency Plan (Plan), Commission Orders and other docketed commitments.

- m. **TIME OF DISCOVERY** - The time the licensee knew ~~(or should have known)~~ ~~(Remove these words because TIME OF DISCOVERY should be a fact not a subjective time developed to determine start time of the assessment clock)~~ of a problem. This could include some delay after raw data is collected (e.g., an analysis is necessary to realize the problem exists).

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n. WEAKNESS - As applied to emergency preparedness, it is a demonstrated level of performance drill or exercise that could have precluded effective implementation of the Emergency Plan in the event of an actual emergency. An identified WEAKNESS during a drill or exercise is a problem that should be corrected, but is not a "FAILURE TO IMPLEMENT". WEAKNESSES are not confined to performance problems which result in a loss of a PS FUNCTION. An inaccurate or untimely classification, notification or PAR development is a WEAKNESS associated with a RSPS (i.e., a DEP PI opportunity failure); ~~[These words should be deleted because they are contrary to the primary definition above. The sentence states that the Plan was still implemented but it can still be a WEAKNESS] (however, a WEAKNESS also occurs if a process performance problem occurs during a correct and/or timely classification, notification or PAR development (i.e., a DEP PI successful opportunity).~~ Failure to correct a WEAKNESS should be analyzed against planning standard 50.47(b)(14) and the Plan for compliance. A failure to identify and/or correct a WEAKNESS associated with an RSPS FUNCTION represents a loss of PS 50.47(b)(14) function. The guidance for PS 50.47(b)(14) as it pertains to the correction of WEAKNESSES is provided in Section 5.0 of this attachment. For purposes of this SDP, this includes a deficiency, as the term is used in planning standard 10CFR50.47(b)(14) and Appendix E, Section IV.F.2.g,

2.2 Guidance

The NRC Policy Statement on *Safety Goals for the Operations of Nuclear Power Plants*, states that EP is a defense in depth measure. EP and many other elements of reactor safety (e.g., remote siting and containment,) are implemented as a matter of prudence rather than in response to a quantitative analysis of accident probabilities. This being the case, the probability of a reactor accident requiring implementation of the Plan has no relevance in determining the significance of an EP problem. Rather, in determining the significance of an EP problem it should be assumed that the EP program is being implemented in response to an emergency and ~~(the impact of the problem assessed.) (Replace these words with "focusing on the actual risk significant consequence of the problem being assessed".)~~ This view should be used to answer the MC 0612 threshold for documentation ~~questions (that are related to accident response issues) (Add these words)~~

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There are two branches of the EP SDP; "FAILURE TO COMPLY" (Sheet 1), and "Actual Event Implementation Problem" (Sheet 2). Findings should be assessed through both paths, where applicable, and the most significant finding issued. Additionally, some findings have a few contributing issues and each issue should be assessed for significance.

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Parallel issues (i.e., more than one issue associated with one finding), should be noted in the inspection report, but only the most significant finding is issued. For example, an implementation problem during an actual event may also reveal a loss of PS FUNCTION. If the loss of PS FUNCTION is more significant, it would dictate the color of the finding. Alternately, a FAILURE TO COMPLY with a RSPS may be accompanied by a FAILURE TO COMPLY with a PS. Inclusion of all associated issues in the inspection report provides a complete record and is particularly important should additional information from the licensee cause reconsideration of the preliminary finding (e.g., the FAILURE TO COMPLY with the RSPS but not the FAILURE TO COMPLY with the PS in the above example).

Move to section 4.0 and check for consistency with discussion in that section, delete from section 2.2.

LOSS of PS FUNCTION is non-compliance with the applicable regulation (10 CFR 50.47(b) and Appendix E). However, the regulatory wording of the PS may not be exact and the determination of a loss of PS FUNCTION may not be obvious. The determination of loss of PS FUNCTION may be informed by program consistency with NUREG-0654, which provides guidance for licensees to use in developing a program to meet the PS. The Plan was assessed (for most plants in the early 1980s) for adequacy against NUREG-0654 and other guidance, commission orders and regulations, and approved by NRC. The Plan is the licensee's commitment for meeting the PS. The Plan may have been approved with processes that differ from the guidance of NUREG-0654, but which ~~appeared to~~ meet the REGULATORY REQUIREMENTS. [Note: These 2 words are unnecessary and create the impression that the current approved EPlan may not actually meet the REGULATORY REQUIREMENTS, and must be reassessed as a basis for determining if adequate planning standard elements exist.] The citation of this guidance is only intended to inform the process of determining whether a program can meet the PS FUNCTION. The determination of a loss of a PS FUNCTION will be based on the criteria provided in this SDP and informed Judgment.

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Judgment must also be applied to determine if a non-compliance rises to the level of a loss of PS FUNCTION. There are many elements to a PS and a program may be in non-compliance with some and yet be able to meet the PS FUNCTION. In this case, there may be a noncompliance with the Plan or an inappropriate change to the Plan may have occurred that removed commitments. The PS function remains, but a non-compliance exists that should result in a finding.

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Please explain the purpose of the following paragraph:

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The Enforcement Policy (NUREG-1600) indicates that a failure to make reports required by NRC regulations is an item of noncompliance that cannot be assessed through the SDP process. However, under the EP Cornerstone, the failure to classify and notify are integral to the EP SDP and guidance is provided, e.g., a failure to activate ERDS or staff the ENS line is a FAILURE TO COMPLY with the requirements of 50.72 and should be considered a FAILURE TO IMPLEMENT under the EP SDP. Similarly, 50.59 problems may be interpreted as a failure to report, but 50.54(g) decrease in effectiveness problems are addressed by the EP SDP.

3.0 ACTUAL EVENT IMPLEMENTATION PROBLEM

SDP Sheet 2 is used when a finding results from a FAILURE TO IMPLEMENT

Background

This branch of the SDP is used when a FAILURE TO COMPLY with REGULATORY REQUIREMENTS occurred during an actual event. Performance problems exhibited during an actual event should be noted as opportunities to improve, however, there is no regulatory issue unless there was a FAILURE TO COMPLY.

FAILURE TO IMPLEMENT means that there was a FAILURE TO COMPLY in the implementation (only) of PROGRAM ELEMENTs. Generally, FAILURE TO IMPLEMENT is the result of personnel errors. A PROGRAM ELEMENT is adequate, and if implemented as designed, the program would meet the PS FUNCTION.

A "FAILURE TO IMPLEMENT" is a subset of performance problems, (i.e., there could be a performance problem that is not a FAILURE TO IMPLEMENT, but not vice versa). Further, a FAILURE TO IMPLEMENT would be an item of noncompliance. Performance problems could also occur during an actual event that would not rise to the level of a FAILURE TO IMPLEMENT (e.g., an OSC team is not fully briefed and must return for tools, engineering efforts initially misdiagnose the accident sequence, mis-communication detracts from effectiveness, etc.)

However, a FAILURE TO IMPLEMENT is not always a result of personnel error and may reveal that a PROGRAM ELEMENT itself is not adequate. Inspection is appropriate to determine if there is a loss of a PS FUNCTION. Resulting issues would be assessed for significance IAW the criteria for a loss of a PS FUNCTION.

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The definition of "timely" and "accurate" for the DEP PI are not universally appropriate for determining whether a RSPS was implemented during an actual event. The performance expectation is that classifications will be made as soon as possible after indications are available that an EAL has been exceeded. A 15 minute goal is considered a reasonable period of time for assessing and classifying an emergency. EPPOS No. 2, dated August 1, 1995 ~~(Have RIS replaced EPPOS and is this reference still appropriate in SDP?)~~, provides further clarification on the staff position with regard to timeliness of event classification. Similarly, notifications are expected to be initiated within 15 minutes of classification. EAL classifications and notifications that take longer than 15 minutes should be examined and a judgement as to adequacy rendered. There may be good reason for the delay and it may have minimal impact on the EP Cornerstone Objective. It is not the intent to issue findings for classifications or notifications that are longer than 15 minutes when the licensee was performing safety related activities meant to protect the public health and safety. However, errors in recognition, delays not based on competing safety related activities or delays that deny offsite authorities the opportunity to protect the public health and safety should be assessed as not implementing the RSPS. Each event response must be judged on a case-by-case basis

Similarly, the definition of "accurate" for the DEP PI is designed to indicate the efficacy of PROGRAM ELEMENTS such as training, drills, procedure quality, corrective actions, etc. During an actual event, an error on the notification form may have little or no impact on offsite agency response efforts, but would have been considered a failure under the PI definition. The effect of such errors should be evaluated against the RSPS FUNCTION to determine if the failure rises to the level of a FAILURE TO IMPLEMENT a RSPS.

Criteria

The Plan was not implemented ~~(existing criteria is fail to implement a regulatory requirement per definition)~~ as appropriate for the declared emergency classification. This is generally determined by reviewing licensee performance during an actual event for compliance with regulations and Plan commitments.

~~Recommend replacing the discussion under "Criteria" with "A FAILURE TO IMPLEMENT" should be evaluated using sheet 2.~~

Considerations

Review the affected PS FUNCTION. If the poor performance had little impact on the affected PS FUNCTION, it may be appropriate to note the performance problem as an opportunity to improve (or perhaps a minor violation), rather than a FAILURE TO IMPLEMENT a PS.

4.0 FAILURE TO COMPLY

SDP Sheet 1 is used when a finding results from a FAILURE TO COMPLY!

"FAILURE TO COMPLY" means that a program is in non-compliance with a regulatory requirement that is more than minor (as determined by Manual Chapter 0612). "Loss of PS FUNCTION" means that PROGRAM ELEMENTs are not adequate, are in non-compliance with the planning standards of 10 CFR 50.47(b) or otherwise not functional to such an extent that the function of the PS is not available for emergency response. It may be that the Plan commitments are not met or are inadequate that implementing procedures are inadequate, that the program design is inadequate, that training is inadequate, etc. The result is that if the PROGRAM ELEMENT was implemented as designed, or personnel are not capable of implementing it, the PS FUNCTION would not be met. The PS FUNCTION is taken from 50.47(b) and Appendix E. Compliance with all NRC requirements is necessary. However, the PS FUNCTION is identified for the purposes of determining the significance of a FAILURE TO COMPLY. PS FUNCTIONAL failure is a subset of FAILURE TO COMPLY, i.e., there can be a FAILURE TO COMPLY that is not a PS FUNCTIONAL failure but not vice versa. Examples of the loss of PS FUNCTION are provided.

Loss of PS FUNCTION is more significant than FAILURE TO COMPLY with individual requirements associated with the PS. The PS often have several elements and Appendix E to 10 CFR 50 contains supporting requirements that generally align with the PS. The Appendix E supporting requirements are cited within the guidance for PS. However, PS FUNCTIONALITY does not require compliance with every requirement. The failure of a program to implement one or a few of the associated requirements does not necessarily mean a loss of PS FUNCTION. Judgement must be rendered to determine if the PS FUNCTION is met, even with the noncompliance. If the function is met, there is a FAILURE TO COMPLY without the loss of PS FUNCTION.

A review of the licensee program against the planning criteria of NUREG-0654 can inform the judgement of whether a program meets the PS FUNCTION. The review must consider any deviations from the guidance approved by NRC. The use of this guidance is only intended to inform the process of determining adequacy of a program. The determination of loss of PS FUNCTION will be based on the criteria provided in this SDP and informed judgement.

A loss of RSPS FUNCTION will result in a yellow finding. There may be cases where the RSPS FUNCTION is degraded, but not lost. These cases warrant a finding, but do not rise to the level of a yellow finding. Examples are provided for the degraded RSPS contingency under each RSPS and these findings would be white. A FAILURE TO COMPLY that does not rise to the level of a degraded RSPS, results in a green finding.

4.1 10 CFR 50.47(b)(1)

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The PS FUNCTIONS are:

- Responsibility for emergency response is assigned.
- The response organization has the staff to respond and augment on a continuing basis (24 hour staffing) IAW the Plan.

Supporting requirements are found in Appendix E, §IV. A. 1., 2., 3., 4., 5., 6., 7., and 8.

Informing criteria are found in NUREG-0654 § II. A.

Examples of loss of PS FUNCTION (white finding) include:

- The organization assigned responsibilities in the Plan no longer has the authority, staff or resources to respond on a continuing basis (24 hours).

Examples of a green finding include:

- A individual staffing change created an inability to assign a responsibility on a continuous basis.

Examples that do not rise to the level of a finding include:

- A temporary staffing change created a lapse in a responsibility assignment.

4.2 10 CFR 50.47(b)(2)

The PS FUNCTIONS are:

- Process to ensure on-shift emergency response responsibilities are staffed and assigned.
- Process for timely augmentation of on-shift staff is established and maintained.

Supporting requirements are found in Appendix E, §IV. A. 2. a., b., and c. and 3 and Appendix E, §IV. C.

Informing criteria are found in NUREG-0654 ~~br the approved plan.~~ § II. B.

Examples of loss of PS FUNCTION (white finding) include:

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- EP responsibilities for any key ERO member function (per NEI 99-02) is not assigned.
- Scheduling and/or process for on-shift staffing allowed more than 1 off-normal shift to go below Plan minimum staffing requirements on more than one occasion (e.g., 2 of 4 weekends in a month, 2 or more backshifts over a 30 day period below Plan minimum staffing requirements). (Is there a bounding time frame for this item?)
- Staffing augmentation processes are routinely not capable of ensuring timely augmentation of the on-shift emergency response staff IAW facility activation goals commitments, to the extent that more than one required ERO function (IAW Plan or commitments to NUREG-0654 Table B-1), would not be filled. This example includes a large percentage of test failures, repeated demonstration of process design inadequacies, repeated operator errors, etc., in the absence of adequate corrective actions.
- Changes to the Plan, not approved by NRC, have resulted in a staff that no longer meets applicable guidance of NUREG-0654 Table B-1, or is not consistent with previously approved staffing to the extent that more than one required ERO function is not staffed.

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Examples of a green finding include:

- Staffing processes permit a shift to go below Plan minimum staffing requirements, but there were no actual instances in which it occurred. Note: Not sure this example rises to the level of a finding. Changes to the Plan, not approved by NRC, have resulted in a staff that is no longer capable of meeting the functions described by NUREG-0654 Table B-1, or is not consistent with previously approved staffing, for any required ERO function. Note: Not all licensee's are committed to NUREG 0654 Table B-1

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Examples that do not rise to the level of a finding include:

- On-shift staffing does not comply with Plant commitments for a short period (e.g. 2 hours) while qualified personnel are being called in.
- An individual, random occurrence of inadequate on-shift staffing has occurred during the INSPECTION CYCLE. A lapse in ERO augmentation capability occurred, perhaps due to equipment failure or scheduling errors, for which subsequent compensatory measures or corrective actions were implemented.

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4.3 10 CFR 50.47(b)(3)

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The PS FUNCTIONS are:

- Arrangements for requesting and using offsite assistance have been made.
- State and local staff can be accommodated at the EOF IAW the Plan.

Supporting requirements are found in Appendix E § IV. A. 6. and 7.

Informing criteria are found in NUREG-0654 § II. C.

Examples of LOSS of PS FUNCTION (white finding) include:

- Plan elements have degraded to the point that Plan commitments for offsite assistance can no longer be met for medical, fire or law enforcement support.
- The EOF has been changed in such a manner that it can no longer accommodate offsite authorities, IAW the Plan.

Note: Some approved Plans accommodate offsite authorities through means other than physical presence of personnel in the EOF.

Examples of a green finding include:

- Agreements with organizations committed in the Plan as supporting the response effort have been allowed to lapse, but the agency remains willing to support the Plan.
- Plan elements have degraded to the point that Plan commitments for offsite assistance can no longer be met for support other than medical, fire or law enforcement support.

Examples that do not rise to the level of a finding include:

- An ~~Letter of Agreement~~ has lapsed but is under revision and there is a commitment for continuing support.

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4.4 10 CFR 50.47(b)(4)

The RSPS FUNCTION is:

- A standard scheme of emergency classification and action levels is in use.

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Supporting requirements are found in Appendix E § IV. B. and C.

Informing criteria are found in NUREG-0654 § D.

NRC has endorsed NUREG-0654 and NUMARC/NESP-007 Rev. 2 as standard schemes of emergency classification. Additionally, NRC has allowed certain modifications to the classification scheme as outlined in EPPS-1.

Examples of loss of RSPS FUNCTION (yellow finding) include:

- EAL changes (not approved by NRC) have downgraded the Emergency Class of an initiating condition (or conditions) such that more than two Alerts, more than one Site Area Emergency or any General Emergency that should be declared under approved guidance would not be declared under the changed scheme.

Examples of degradation of RSPS FUNCTION (white finding) include:

- EAL changes (not approved by NRC) have downgraded the Emergency Class of an initiating condition (or conditions) such that more than one Alert or any Site Area Emergency that should be declared under approved guidance would not be declared under the changed scheme.

Examples of a green finding include:

- EAL changes (not approved by NRC) have downgraded the Emergency Class of an initiating condition (or conditions) such that any Alert or Notification of Unusual Event that should be declared under approved guidance would not be declared under the changed scheme.

~~Changes to the EAL scheme that deviate from approved guidance but do not rise to either of the above levels may be a decrease in effectiveness and in noncompliance with 10 CFR 50.54(g). Redundant to findings for 50.54(g).~~

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Annual EAL review not offered to be reviewed with offsite officials.

- Non-editorial EAL changes not discussed with offsite officials prior to implementation.

Examples that do not rise to the level of a finding include:

- A typographical or minor error in an EAL, not affecting the declaration of the proper Emergency Class, is identified for correction.
- Editorial changes that do not change the intent of the EAL.

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Summary

	Yellow	White	Green
General Emergency	1 or more	1	1
Site Area Emergency	2 or more	1	1
Alert	3 or more	2	1
Notification of Unusual Event			Any

4.5 10 CFR 50.47(b)(5)

The RSPS FUNCTIONS are:

- Procedures for notification of state and local governmental agencies are capable of initiating notification within 15 minutes after declaration of an emergency.
- Administrative and physical means have been established for alerting and providing prompt instructions to the public within the plume exposure pathway,
- The public alert and notification system meets the design requirements of FEMA-REP-10 or is in compliance with the FEMA approved ANS design report.

Supporting requirements are found in Appendix E §IV. D. 1. and 3.

Informing criteria are found in NUREG-0654 § E and Appendix 3.

Criteria are found in FEMA-REP-10. These criteria are integral to the RSPS FUNCTION.

Case law includes: ASAB-935, Appeal of Seabrook ANS Issues; ASLBP No. 82-472-03, Shearon Harris ANS issues; ASAB-852, Appeal of Shearon Harris ANS issues. It may be noted that ASAB rulings are precedent setting nationally. ASLBP ruling are not, but the guidance therein can inform deliberations.

EPPOS No. 2, dated August 1, 1995, provides further clarification on the staff position with regard to timeliness of event classification. (Why is this in notification PS since it addresses classification and not notification?)

Examples of loss of RSPS FUNCTION (yellow finding) include:

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- Procedures will not enable personnel to initiate offsite notifications within 15 minutes after declaration of an emergency.
- Communications systems will not enable personnel to initiate offsite notifications within 15 minutes after declaration of an emergency.
- The public alert and notification system (e.g., sirens, other supporting primary notification methods), have design flaws that result in a major loss of the system (as defined by the licensee's 50.72 notification criteria) for a period greater than 30 days without compensatory measures (e.g., automatic backup route alerting) and the licensee KNEW OR SHOULD HAVE KNOWN of the problem.

Examples of degradation of RSPS FUNCTION (white finding) include:

- The public alert and notification system (e.g., sirens, other supporting primary notification methods), have design flaws, test program, maintenance program or procedural deficiencies that degrade a portion (of the system for a period greater than 30 days from TIME OF DISCOVERY without compensatory measures (e.g., automatic backup route alerting).
- Loss of capability to determine if sirens activated or not (e.g., feedback system failure and the capability to notify 100% of the population in the plume exposure pathway EPZ takes longer than 45 minutes. This example only applies to licensee's with a feedback system!)

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Examples of a green finding include:

- An individual siren has not been available for a continuous period of greater than 4 months with no compensatory measures. Note: this finding is not necessary if the ANS PI has fallen below the green band threshold during the period under consideration. Note: There is no regulation for individual siren availability.
- An individual siren has been available for less than 70% over a period of 12 months with no compensatory measures (e.g., automatic backup route alerting). Note: this finding is not necessary if the ANS PI has fallen below the green band threshold during the period under consideration. There is no regulation for individual siren availability.

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Examples that do not rise to the level of a finding include:

- An individual siren has been available for greater than 70% over a period of 12 months where the ANS PI is within the green band and

compensatory measures (eg., automatic backup route alerting) are in place. Note: There is no regulation for individual siren availability

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4.6 10 CFR 50.47(b)(6)

The PS FUNCTIONS are:

- Systems are established for prompt communications among principal emergency response organizations.
- Systems are established for prompt communications to emergency response personnel.

Supporting requirements are found in Appendix E § IV E. 9.

Informing criteria are found in NUREG-0654 § II. E.

Examples of loss of PS FUNCTION (white finding) include:

- Communications systems have degraded such that no communications channel between any two key ERO members (IAW NEI 99-02) is available in the TSC, EOF, or Control Room, for longer than about a day without compensatory measures from TIME OF DISCOVERY. In the event of major disruptive events (e.g., hurricane, fire, explosion, loss of power) or planned outages, compensatory measures are acceptable while repair activities proceed with high priority.
- Loss of communications capability, for longer than about a week from TIME OF DISCOVERY such that no communications channel between any key ERO member (IAW NEI 99-02) and any of the following she/he is expected to interface with: field monitoring teams, the emergency news facility, the OSC or damage control teams, without compensatory measures. In the event of major disruptive events (e.g., hurricane, fire, explosion, loss of power, etc.), or planned outages, compensatory measures are acceptable while repair activities proceed with high priority.
- Backup power supplies for at least one onsite and one offsite communication systems, as required by Appendix E, are not functional for more than 30 days from TIME OF DISCOVERY, in the absence of compensatory measures.

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Examples of a green finding include:

Communications equipment for key ERO members (IAW NEI 99-02) in an emergency facility is degraded (e.g., many phones) without compensatory measures ~~from TIME OF DISCOVERY~~. In the event of major disruptive events (e.g., hurricane, fire, explosion, loss of power, etc.), or planned outages, compensatory measures are acceptable while repair activities proceed with high priority. Backup power supplies for at least one onsite and one offsite communication systems, as required by Appendix E, are not functional for more a few days ~~from TIME OF DISCOVERY~~, in the absence of compensatory measures.

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Examples that do not rise to the level of a finding include:

- A few phones are out of service in any emergency center.
- Communications equipment is significantly degraded (e.g., many phones and more than two circuits) in any emergency center, such that implementation of the Plan would be impacted, for a short time (e.g., less than a day) before repair and compensatory measures are implemented.

4.7 10 CFR 50.47(b)(7)

The PS FUNCTIONS are:

- EP information is made available to the public on a periodic basis within the plume exposure pathway EPZ.
- Procedures for coordinated dissemination of public information during emergencies are established.

Supporting requirements are found in Appendix E. §IV. D. 2.

Informing criteria are found in NUREG-0654 § II. G and NUREG-0696.

Examples of loss of PS FUNCTION (white finding) include:

- The dissemination of EP related public information is not complete in that transient areas, EPZ segments or other localized groups are not sent the information (e.g., hotels, recreational parks, select phone books, zip codes). Note: This was a green finding in the previous revision. Also, the licensee does not control the activities of private businesses in the EPZ. This is inconsistent with the definition of a loss of planning standard function since any facility or transient area is not provided public information. A few isolated failures does not constitute a loss of function!

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- EP related public information documents do not contain the required information (e.g., how the public will be notified, what their actions should be, principal points of contact for information during an emergency).
- Locations routinely visited by the public or worker locations within the licensee's owner controlled area do not receive appropriate EP related information committed to in the Plan, or in the absence of Plan commitment, federal guidance.
- Processes for dissemination of information during emergencies can not be effectively implemented, (e.g., staff necessary to operate the emergency news center is not knowledgeable enough to operate the center, procedures for dissemination of information are not established, augmentation (call out) processes will not ensure activation of center staff in a timely manner, or methods for information approval will not allow timely and accurate information releases). There is no regulatory requirement defining timely and accurate for news statements.
- Lack of coordination, internally on the part of the licensee, as evidenced in inaccurate, contradictory, and/or delayed information, to such an extent that the health and safety of the public is compromised during emergencies. These two examples are drill or exercise performance implementation issues and should be addressed under FAILURE TO IMPLEMENT or planning standard 14.

Examples of a green finding include:

- EP related public information has not been disseminated for a period longer than that committed to in the Plan or in the absence of Plan commitment, federal regulation (10CFR50 Appendix E D.2).
- Procedures for dissemination of information to the public are not maintained such that significant elements of the public information process are degraded (e.g., contact lists are not effective, approval process can not be implemented due to organization changes, etc.). These two examples are drill or exercise performance implementation issues and should be addressed under FAILURE TO IMPLEMENT or planning standard 14.
- Locations routinely visited by the public or worker locations within the licensee's owner controlled area do not receive EP related information for a period longer than that committed to in the Plan or in the absence of Plan commitment, federal regulation (10CFR50.47 B.10). (Note: for some locations, signs, and the like,

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may be an appropriate method for dissemination of public information.)

Examples that do not rise to the level of a finding include:

- The joint information center does not issue a news release, that does not direct public action, during an Unusual Event or Alert declaration, contrary to Plan commitments.
- Isolated instance of an inaccurate, contradictory or delayed piece of information being released to the public.
- Documentation of the dissemination of EP related public information documents is incomplete.
- Confusion on the part of the news media as to where to assemble for briefings.

Examples 1, 2 and 4 above are drill or exercise performance implementation issues and should be addressed under FAILURE TO IMPLEMENT or planning standard 14.

4.8 10 CFR 50.47(b)(8)

The PS FUNCTIONS are:

- adequate facilities are maintained to support emergency response
- adequate equipment is maintained to support emergency response.

Supporting requirements are found in Appendix E. §IV. E. 1, 2, 3, 4, 8, and G.

Informing criteria are found in NUREG-0654 § II. H. and NUREG-0696

Examples of LOSS OF PLANNING STANDARD FUNCTION (white finding) include:

- The OSC, TSC or EOF is not functional for a period of longer than about 24 hours from TIME OF DISCOVERY, to the extent that any key ERO member (IAW NEI 99-02) could not perform assigned Plan functions in the absence of compensatory measures. In the event of major disruptive events (e.g., hurricane, fire, explosion, loss of power, etc.), or planned outages, compensatory measures are acceptable while repair activities proceed with high priority.

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The TSC or EOF is not functional to the extent that unavailability exceeds .01 (as defined in NUREG-0696, with the exception that cold shutdown time should be included in the calculation) over a four quarter rolling average. In the event of major disruptive events

(e.g., hurricane, fire, explosion, loss of power, etc.) or planned outages, compensatory measures are acceptable while repair activities proceed with high priority. NUREG 0696 used 99 percent as a design criteria for the TSC and EOF but it was not intended for the operational availability criteria.

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The backup or alternate EOF (IAW the Plan) is not capable of be activated in accordance with the plan for a period of longer than about 30 days from TIME OF DISCOVERY absent of compensatory measures. In the event of major disruptive events (e.g., hurricane, fire, explosion, loss of power, etc.), or planned outages, compensatory measures are acceptable for a period longer than 30 days provided repair activities proceed with high priority.

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Equipment necessary to implement the Plan is not available or not functional to an extent that any key ERO member (IAW NEI 99-02) would not be able to perform assigned functions, for longer than about a week from TIME OF DISCOVERY without compensatory measures (e.g., lack of damage control equipment would prevent OSC Manager from performing functions, lack of engineering documents would prevent TSC Technical Support from performing function). The availability of additional onsite equipment, in a reasonably timely manner, is considered as compensating for the PS FUNCTION.

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Examples of a green finding include:

- ~~(Note: this item is addressed in item 3 below.)~~ Changes have been made to the OSC, TSC or EOF that do not comply with the Plan, but the facilities remain functional.
- The OSC, TSC or EOF is not functional for a period of longer than about 24 hours from TIME OF DISCOVERY a day, to the extent that any ERO member (IAW NEI 99-02) Table B-1 or equivalent plan commitment could not perform assigned Plan functions, in the absence of compensatory measures. In the event of major disruptive events (e.g., hurricane, fire, explosion, loss of power, etc.), or planned outages, compensatory measures are acceptable while repair activities proceed with high priority.

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Examples that do not rise to the level of a finding include:

- A few equipment or instrumentation items committed to in the Plan are missing or out of calibration and replacement equipment or instrumentation is available onsite.
- Storage or transient items are found in an ERF, but responders are still able to activate the facility.

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4.9 10 CFR 50.47(b)(9)

The RSPS FUNCTION is:

- Methods, systems and equipment for assessment of radioactive releases are in use.
- Supporting requirements are found in Appendix E. §IV. B. and E. 2.
- Informing criteria are found in NUREG-0654 § II. I.

Examples of loss of RSPS FUNCTION (yellow finding) include:

- Methods are inadequate ~~(e.g., do not conform with Reg Guide 1.9 or 1.4, are not technically justifiable)~~ to estimate source term and/or project offsite dose due to a radioactive release.
- Equipment for dose projection is not functional for longer than 24 hours from TIME OF DISCOVERY, to the extent that no capability exists for immediate dose projection, without compensatory measures.
- Changes have been made to dose projection systems (e.g., software) that result in loss of all dose assessment capability through failure of software, significant systematic errors (i.e., not due to normal uncertainty in the process) or loss of input parameter capability (e.g., meteorological input is in error), and the condition exists for more than 24 hours from TIME OF DISCOVERY without compensatory measures. ~~(Note: redundant to example immediately above)~~

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Examples of a degradation of the RSPS FUNCTION (white finding) include:

- The field monitoring function (at least dose rate measurement and iodine presence determination) is unavailable for more than 72 ... hours from TIME OF DISCOVERY without compensatory measures. In the event of major disruptive events (e.g., hurricane, fire, explosion, loss of power, etc.) or planned outage, compensatory measures are acceptable while repair activities proceed with high priority.
- Equipment or systems for dose projection are not functional for longer than 24 hours from TIME OF DISCOVERY, to the extent that no capability exists for immediate dose projection in onsite emergency response centers as committed to in the Plan, without compensatory measures. ~~(Note: Please explain the difference~~

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~~between the dose projection examples for the yellow, white and green findings. They appear to be very close if not identical!~~

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Examples of a green finding include:

Dose projection equipment and systems are not functional as committed to in the Plan, for longer than 24 hours ~~from TIME OF DISCOVERY~~ without compensatory measures. The field monitoring function IAW the Plan is unavailable for more than 72 hours ~~from TIME OF DISCOVERY~~, without compensatory measures. In the event of major disruptive events (e.g., hurricane, fire, explosion, loss of power, etc.) or planned outage, compensatory measures are acceptable while repair activities proceed with high priority.

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Examples that do not rise to the level of a finding include:

Dose projection equipment and systems, or field monitoring capability, is not functional as committed in the Plan, for some period less than 24, or 72 hours ~~from TIME OF DISCOVERY~~, respectively.

4.10 10 CFR 50.47(b)(10)

This PS has two aspects that are of differing risk significance. The development of protective action recommendations (PARs) is integral to protection of public health and safety and is considered to be a RSPS. However, this PS also addresses emergency workers. While the protection of emergency workers is very important, it is not as significant as the protection of public health and safety due to an emergency worker's training and experience with regard to radiological issues. The emergency worker protection portion is considered to be a PS, rather than a RSPS.

The RSPS FUNCTION is:

A range of public protective action recommendations (PARs) is available for implementation during emergencies.

There are no supporting requirements in Appendix E.

Informing criteria are found in NUREG-0654 § II. J. 1., 2., 3., 4., 7., 8., 10 and Supplement 3.

Examples of loss of RSPS FUNCTION (yellow finding) include:

- Process does not provide PARs that are in accordance with Plan commitments or federal regulation to the extent that in a General Emergency appropriate PARs would not be issued to cover affected populated areas within 5 miles of the site.
- Process does not address procedures, equipment, and/or personnel to provide notification of the general public within the owner controlled area.

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Examples of a degradation of the RS PS FUNCTION (white finding) include:

- Process does not provide PARs that are in accordance with Plan commitments or federal guidance to the extent that in a General Emergency appropriate PARs would not be issued to cover affected populated areas within 5 to 10 miles of the site.

(Replace the above text with the following: Process does not adequately address procedures, equipment, and/or personnel to provide notification of the general public within the owner controlled area.)

Personnel are unable to implement the PAR process.

Note: This example is a drill or exercise performance implementation issue and should be addressed under FAILURE TO IMPLEMENT or planning standard 14 and not in this planning standard.

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Examples of a green finding include:

- Process does not provide PARs that are in accordance with Plan commitments or federal regulation to the extent that in a General Emergency appropriate PARs would not be issued to cover affected populated areas beyond the plume exposure pathway EPZ, should they be necessary.

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Examples that do not rise to the level of a finding include:

- None

The PS FUNCTION is:

- A range of protective actions is available for emergency workers during emergencies.

There are no supporting requirements in Appendix E.

Informing criteria are found in NUREG-0654 § II. J. 2., 3., 4., 5. and 6.

Examples of LOSS OF PLANNING STANDARD FUNCTION (white finding) include:

- The accountability processes is flawed (as determined by a review) to the extent that it can not ensure that onsite accountability is accomplished and maintained during an emergency.
- A significant fraction (e.g., >25%) of the onsite notification system, is out of service in occupied areas that would need to be evacuated during an emergency, without compensatory measures, for longer than 7 days from TIME OF DISCOVERY.
- Respiratory protective equipment on-site is degraded or personnel are not qualified to use it, to the extent that the minimum complement of control room operators could not be protected for at least 4 hours from TIME OF DISCOVERY (if needed), without compensatory measures.
- The site evacuation process is flawed (as determined by a review) to the extent that it can not be accomplished during an emergency.

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Examples of a green finding include:

- A fraction (e.g., >10%) of the onsite notification system is out of service in occupied areas that would need to be evacuated during an emergency, without compensatory measures for longer than 24 hours from TIME OF DISCOVERY.
- Respiratory protective equipment on-site is not maintained IAW regulations and/or plan commitments.

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Examples that do not rise to the level of a finding include:

- The onsite notification system is out of service in a few occupied areas.

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4.11 10 CFR 50.47(b)(11)

The PS FUNCTION is:

- The means for controlling radiological exposures for emergency workers are established.

Supporting requirements are found in Appendix E. §IV. E.. 1.

Informing criteria are found in NUREG-0654 § II. K.

Examples of LOSS OF PLANNING STANDARD FUNCTION (white finding) include:

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- Radiological control equipment or instrumentation, necessary to control emergency worker exposures is not available (e.g., out of service or calibration) to such an extent that emergency work necessary to protect the health and safety of the public can not be performed during emergencies. The availability of additional equipment, onsite, in a reasonably timely manner is considered as compensating for the PS FUNCTION.
- Processes for controlling exposures during emergencies will not ensure that exposures are maintained IAW Plan commitments.

Examples of a green finding include:

- Radiological control equipment or instrumentation, necessary to control emergency worker exposures is not available to such an extent that emergency work necessary to protect the health and safety of the public is impaired during emergencies. The availability of additional equipment, onsite, in a reasonably timely manner is considered as compensating for the PS FUNCTION.

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Examples that do not rise to the level of a finding include:

- A few equipment or instrumentation items committed to in the Plan are missing or out of calibration and replacement equipment or instrumentation is available at the storage location or onsite with reasonably rapid accessibility.

4.12 10 CFR 50.47(b)(12)

The PS FUNCTION is:

- Arrangements are made for medical services for contaminated injured individuals.

Supporting requirements are found in Appendix E. §IV. E. 5., 6. and 7.

Informing criteria are found in NUREG-0654 § II. L.

Examples of LOSS OF PLANNING STANDARD FUNCTION (white finding) include:

- No agreement exists with any qualified, properly equipped, hospital for the care of contaminated injured personnel. This is applicable if the licensee KNEW OR SHOULD HAVE KNOWN about the loss of capability.

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Examples of a green finding include:

- Agreements for medical support with organizations have been allowed to lapse, but the agency remains willing to support the Plan.

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Examples that do not rise to the level of a finding include:

- An Letter of Agreement has lapsed but is under revision and there is a commitment for continuing support.

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4.13 10 CFR 50.47(b)(13)

The PS FUNCTION is:

- Plans for recovery and reentry are developed.

There are no supporting requirements in Appendix E.

Informing criteria are found in NUREG-0654 § II. M.

Examples of LOSS OF PLANNING STANDARD FUNCTION (white finding) include:

Due to the non-emergency nature of recovery efforts, there is no PS FUNCTIONAL failure that would be assigned for failures in this area (i.e., any FAILURE TO COMPLY would not exceed a green finding).

- None.

Examples of a green finding include:

- Recovery efforts are not preplanned.
The recovery process is not exercised.

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Examples that do not rise to the level of a finding include:

- None

4.14 10 CFR 50.47(b)(14)

The PS FUNCTIONS are:

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- A drill and exercise program (including radiological, medical, HP, etc.) is established.
- Full scale drills and exercises are assessed via a formal CRITIQUE process in order to identify WEAKNESSES with a RSPS.
- Identified RSPS WEAKNESSES are corrected.

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Supporting requirements are found in Appendix E, §IV. F. 1. And 2.

Informing criteria are found in NUREG-0654 § II. N.

Examples of LOSS OF PLANNING STANDARD FUNCTION (white finding) include:

- More than two drills/exercises (excluding biennial exercise) during the INSPECTION CYCLE (e.g., radiological, medical, HP, etc.) have not been conducted IAW the Plan.
- A biennial exercise is not conducted during a 2 year (calendar) period without receiving an exemption.
- The drill and exercise CRITIQUE process does not properly identify a WEAKNESS associated with a RSPS during a FULL SCALE DRILL OR EXERCISE. See PS discussion below.
- Formal CRITIQUEs are not conducted for more than two scheduled drills/exercises during the INSPECTION CYCLE.
- Failure to correct an RSPS WEAKNESS. See Section 5.0, Corrective Actions.

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Question: If there is a similar failure in a subsequent drill or exercise for a different reason, would this be considered a white finding?

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Examples of a green finding include:

- A drill has not been conducted during the INSPECTION CYCLE IAW the Plan.
- A major portion of the basic elements of the Plan are not exercised during the biennial exercise.
- The drill and exercise CRITIQUE process does not properly identify a WEAKNESS associated with a non-RSPS during a FULL SCALE DRILL OR EXERCISE or any PS WEAKNESS during a limited facility interaction drill where there is a limited team of evaluators single evaluator (e.g., facility table-top training drill, operator training simulator drill, individual facility training drill). (See PS discussion below)

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Note: Appendix E, Section IV.F.2.g. requires that WEAKNESSES be identified and corrected. The identification and correction of WEAKNESSES is of fundamental importance to the Cornerstone Objective (guidance for the correction of WEAKNESSES is provided in

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Section 5.0). The failure of a CRITIQUE to identify a WEAKNESS is a violation of this planning standard and Appendix E, Section IV.F.2.g and shall be dispositioned in accordance with NUREG-1600, Enforcement Policy, Section IV.A.5 and VI.A.1.

Examples that do not rise to the level of a finding include:

- A drill is rescheduled or canceled, but the program remains in compliance with the Plan.
- Drill/exercise has not been conducted IAW the Plan due to extenuating circumstances and appropriately rescheduled.

Use of CRITIQUE methods such as student-instructor feedback on the spot correction or other less formal methods, for training sessions used to familiarize personnel assigned to the ERO.

GUIDANCE ON DRILL OR EXERCISE CRITIQUE PROBLEM

Background

This guidance is for inspector issues identified through the baseline program inspection of licensee drills and exercises. Inspection Procedure Nos. 71114.01 and 71114.06 instruct inspectors to observe exercises and drills and identify WEAKNESSES (i.e., a demonstrated level of performance that could have precluded effective implementation of the emergency plan in an actual emergency.) A CRITIQUE PROBLEMS occurs when the licensee does not identify a WEAKNESS observed by the inspector.

The SDP stratifies a failure to CRITIQUE a WEAKNESS at two levels;

- CRITIQUEs that fail to identify a WEAKNESS with a RSPS during a FULL SCALE DRILL OR EXERCISE, i.e., a drill/exercise where there are multiple ERFs participating (more than one) and a team of evaluators. This CRITIQUE failure represents a PS FUNCTIONLOSS OF PLANNING STANDARD FUNCTION and is potentially a white finding.
- CRITIQUEs that fail to identify any WEAKNESS with a non-RSPS during a FULL SCALE DRILL OR EXERCISE are potentially a green finding.

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CRITIQUEs that fail to identify any WEAKNESS for any PS during a limited facility interaction drill and there is a limited team of evaluators (e.g., facility table-top training drill, operator training

simulator drill, individual facility training drill) are potentially a green finding.

The EP Cornerstone licensee response band is created by the PI system and the licensee's corrective action program. Data for the DEP and ERO PI values comes from drill and exercise CRITIQUES. If the CRITIQUE program is not identifying performance problems, the EP licensee response band comes into question. The white finding for a single failure to identify a WEAKNESS with a RSPS during a FULL SCALE DRILL OR EXERCISE is a high standard based on the NRC need to ensure the efficacy of the licensee CRITIQUE program and hence the licensee response band.

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RSPS performance problems should be given the highest priority in the CRITIQUE process. The baseline inspection program is based on accurate PI data to properly reflect licensee performance. The DEP PI is based on the licensee's ability to determine if a PI opportunity is successful or not. Thus, a licensee's ability to observe, evaluate and CRITIQUE a WEAKNESS with a RSPS is critical. If the licensee CRITIQUE fails to identify an inaccurate or untimely classification, notification or PAR development, it is considered a **LOSS OF PS FUNCTION** (white finding). **LOSS OF PLANNING STANDARD FUNCTION** (This sentence is inconsistent with definition of a WEAKNESS). This is because the licensee's capability to observe and evaluate the process associated with a RSPS is **critical**. *The expectation is for the licensee's CRITIQUE to emphasize evaluation of performance in the RSPS areas. (NOTE: These sentences are repetitive of statements above; delete these last two sentences.)*

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Licensees perform CRITIQUES in many different ways and the baseline inspection instructs inspectors to be flexible in accepting mechanisms for problem identification. The critical feature of any CRITIQUE is that a WEAKNESS is captured and entered into a corrective action system with appropriate priority. If the inspector can be assured that the WEAKNESS will be entered into a corrective action system, prior to disclosing a finding, the CRITIQUE should be considered successful.

The disposition of CRITIQUE findings varies among sites. The licensee must evaluate numerous evaluator observations and prioritize resources for correction. Indeed, some evaluator suggestions may be counter productive in the judgement of responsible EP management. Care should be taken to understand the logic for suggestion disposition before the disposition is identified as a CRITIQUE PROBLEMS. However, disregard for well founded evaluator identified WEAKNESSES should be considered as a CRITIQUE PROBLEMS (e.g., if the WEAKNESS would have been a FAILURE TO IMPLEMENT in an actual event, the NRC expectation is that it will be captured by the CRITIQUE and entered into a corrective action program).

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The Plan contains the approved commitments for NRC regulations. The implementing procedures are the licensee's methods of implementing those commitments and may be used to judge effective, timely and accurate implementation. If the Plan or procedures themselves are inadequate, it is not a drill/exercise CRITIQUE issue. Rather, it is a FAILURE TO COMPLY with a PS and the applicable PS found in this section should be used to determine significance. Licensee mistakes and mis-steps that only detract from implementation should not initially be considered WEAKNESSES. Mistakes are likely to happen in the course of an exercise and when these are corrected by the ERO it reveals an organizational strength rather than a WEAKNESS.

The RSPS include 10 CFR 50.47(b)(9). This RSPS is covered by the DEP PI in an indirect manner (i.e., classification and PARs may be based on dose projections). The expectation is for the CRITIQUE to emphasize evaluation of performance in the RSPS areas and associated WEAKNESSES should be identified and corrected.

Criteria

A licensee's CRITIQUE of a drill or exercise failed to identify a WEAKNESS observed by NRC inspectors.

Considerations

The WEAKNESS that was missed by the CRITIQUE must be a demonstrated level of performance that could have precluded effective implementation of the emergency plan in an actual emergency. Some mis-steps in performance may not rise to the level of a WEAKNESS and/or were corrected by the subsequent actions of the ERO.

CRITIQUE processes differ among licensees and a licensee should be given credit if the WEAKNESS was entered into a corrective action process whether the WEAKNESS was verbalized at a CRITIQUE meeting or not.

4.15 10 CFR 50.47(b)(15)

The PS FUNCTION is:

- Training is provided to emergency responders.
- Supporting requirements are found in Appendix E. §IV. F. 1.
- Informing criteria are found in NUREG-0654 § II. O.

Examples of PS FUNCTIONLOSS OF PLANNING STANDARD FUNCTION (white finding) include:

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- Personnel have not received required EP training to such an extent that coverage on a continuing basis (24 hours) by emergency response personnel is not available for any key ERO function (due to lack of personnel with current training qualifications) as defined by NEI 99-02. (Note: if personnel have been removed from EP duty, their training qualifications are not a regulatory concern.)

Examples of a green finding include:

- Personnel have not received required EP training to such an extent that coverage on a continuing basis (24 hours) by emergency response personnel is not available for any ERO position (as defined by Table B-1 or equivalent) (due to lack of personnel with current training qualifications) as defined by the Plan. Note: if personnel have been removed from EP duty, their training qualifications are not a regulatory concern.)
- Unqualified personnel (e.g., lapsed training) expected to respond during an emergency are maintained on the ERO call-out list.

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Examples that do not rise to the level of a finding include:

- Personnel have not received required EP training but there are other qualified personnel available to staff the affected positions.

4.16 10 CFR 50.47(b)(16)

The PS FUNCTION is:

- Responsibility for Plan development and review is established.

There are no supporting requirements in Appendix E.

Informing criteria are found in NUREG-0654 § II. P.

Examples of LOSS OF PLANNING STANDARD FUNCTION (white finding) include:

Due to the non-emergency nature of Plan development efforts, there is no PS FUNCTIONAL failure that would be assigned for failures in this area, i.e., any FAILURE TO COMPLY would not exceed a green finding.

- None

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Examples of a green finding include:

- Responsibilities for Plan development are not established.

Examples that do not rise to the level of a finding include:

- None

5.0 CORRECTIVE ACTIONS

5.1 INTRODUCTION

NRC Reactor Oversight Process EP Cornerstone is based on the licensee response band created by the PI program and the licensee problem identification and resolution (PI&R) program. As related to EP, PI&R encompasses the drill and exercise CRITIQUE program, CRITIQUE of actual events and other assessment activities such as QA audits and reviews performed IAW 50.54(t), as well as the corrective action program. The EP Baseline Inspection Program provides oversight of licensee efforts to CRITIQUE drills and exercises and correct WEAKNESSES. 10 CFR 50.47(b)(14) and Appendix E § IV. F. 2. g. require drills and exercises be formally assessed and that identified WEAKNESSES be corrected.

The EP Cornerstone is designed to foster drill and exercise programs that develop and maintain emergency response organization skills. It is the nature of a drill program that performance errors will occur and that equipment, facility and procedure problems will surface. The identification and correction of these WEAKNESSES is a positive and vital aspect of the program. The Drill and Exercise Performance PI provides a 90% success threshold for the licensee response band. This infers that a level of performance error (in drills/exercises) is acceptable and that correction of errors and problems is within the licensee response band. The regulations require that WEAKNESSES identified during training and drills be corrected.

5.2 TIMELINESS

Guidance is provided on the timeliness aspect of correction of WEAKNESSES. The timeliness guidance should not be interpreted as a requirement. Rather, the guidance delineates when it is appropriate for an inspector to review corrective action efforts for timeliness.

The licensee determines the safety significance of WEAKNESSES and sets priorities IAW commitments and approved corrective action

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programs. The appropriateness of those priorities are judged in the context of the problem. The timeliness guidance may be used as a limit for inspector involvement (e.g., if the WEAKNESS is corrected in a shorter time than that suggested in the guidance, the inspector probably does not need to review the basis for timeliness of corrective actions).

Root cause analyses, common cause analyses and the like may take 60 days, or longer in some cases, to complete. While immediate corrective actions, such as briefings or lessons learned summaries may be implemented rapidly, they may not represent actual correction of the WEAKNESS. The expectation is that the licensee will resolve problems in a manner appropriate to the risk significance. While that will often be in less time than suggested below, there may be times when a licensee should take more time. When the time is longer, the inspector should review the scheduling rationale for reasonableness and any potential to impact the public health and safety. Should a corrective action item be scheduled in a manner that is not reasonable, or potentially impacts the public health and safety (in that the Plan can not be implemented effectively), a finding may be appropriate for FAILURE TO COMPLY with PS 50.47(b)(14).

- A RSPS related drill/exercise performance WEAKNESS is typically corrected within 90 days of identification.
- A PS related drill/exercise performance WEAKNESS is typically corrected within 180 days of identification.
- Resolution of other drill/exercise performance WEAKNESSES is expected within the next biennial exercise cycle due to the lower risk significance of these efforts and expected lower priority of such efforts.

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EP related corrective action systems may track enhancement suggestions that result from the drill program. These suggestions often add value to the EP program, but are not required and do not address WEAKNESSES. There is no NRC timeliness expectation for resolution of enhancement suggestions.

Criteria

The timeliness of the resolution of a drill/exercise performance WEAKNESS is not appropriate for its risk significance. If the problem is RSPS related, the failure to correct should be considered a LOSS OF PLANNING STANDARD FUNCTION for 50.47(b)(14) (i.e., a white

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finding), otherwise it should be considered a FAILURE TO COMPLY with REGULATORY REQUIREMENTS (i.e., a green finding).

Considerations

It is not appropriate to consider the timeliness of enhancement items. The lack of timeliness in corrective actions should be well in excess of the suggested guidance and judged as inappropriate in view of the significance of the WEAKNESS.

5.3 FAILURE TO CORRECT DRILL AND EXERCISE WEAKNESSES

Determination of a failure to correct a drill/exercise WEAKNESS requires a detailed review of the WEAKNESS and the corrective actions. It is not intended that a single repeat of a WEAKNESS (e.g., in a drill) automatically be judged as a failure of the corrective action system. Conversely, success in a drill/exercise (e.g., by one well drilled team) should not necessarily be considered as a demonstration of problem resolution. When an apparent failure to resolve a problem is observed, a review of specific corrective actions should be conducted. Similar occurrences in response to actual events, drills, exercises and training evolutions should be reviewed. The status of relevant PIs should be considered. Corrective action, self assessment and inspection records should be reviewed for an INSPECTION CYCLE with emphasis on similar problems. Completion of corrective actions should be verified. Assessment of the effectiveness of the corrective actions should be based on the complete history of the issue. Judgement should be used to decide how far back in time to go to obtain a reasonably complete picture of the current problem. The intent is to see a pattern of recurring events.

Background

10 CFR 50.47(b)(14) requires that *Periodic exercises are conducted to evaluate major portions of emergency response capabilities, periodic drills are conducted to develop and maintain key skills and deficiencies identified as a result of exercises and drills are (will be) corrected.* Appendix E, section IV, F, g, states *All training, including exercises, shall provide for formal CRITIQUES in order to identify weak or deficient areas that need correction. Any WEAKNESSES or deficiencies that are identified shall be corrected.*

The PI system collects performance data from a broad cross section of drills and the licensee response band allows for ERO members to fail in the process of developing and maintaining key skills. The correction of

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drill/exercise WEAKNESSES is within the licensee response band. If NRC oversight unduly penalizes failures in drill performance, it would detract from the development and maintenance of key skills.

The DEP PI allows a 10% failure rate threshold for the licensee response band in the most risk significant areas of the EP Cornerstone. If the PI crossed the threshold, the licensee would plan actions to correct the performance WEAKNESS and a white input would be documented. However, no finding against corrective actions would be necessary, even though the failure to correct WEAKNESSES may be part of the root cause for crossing the PI threshold.

The following paragraphs introduce a defacto ROP PI and should be addressed through the ROP PI process. Individual criteria for the planning standards and guidance for findings is provided in the balance of the document as well as being addressed by timeliness of corrective actions.

In performance areas not covered by the DEP PI, there is no PI threshold for which regulatory oversight is increased. The SDP must address the failure to correct WEAKNESSES in these areas. If the threshold for performance in the most risk significant areas of EP is 10%, it would appear that an appropriate regulatory threshold for the correction of WEAKNESSES in other areas of EP would be a 20% failure rate in drill/exercises performance. This means that detailed inspection of correction of drill/exercise WEAKNESSES is not necessary unless performance problems are above a 20% failure rate over an INSPECTION CYCLE.

The performance failure rate in non-RSPS areas is not compiled. However, data from drill CRITIQUES may be used to develop these statistics. The number of opportunities and failures may be determined through a review of drill/exercise CRITIQUES. It may be assumed that the absence of identified WEAKNESSES indicates a successful performance.

When performance in an area exhibits greater than a 20% failure rate, the inspector should review the corrective actions to determine adequacy. If corrective actions are not adequate and the WEAKNESS involves a RSPS area not covered by the DEP PI (e.g., 50.47(b)(9)), a LOSS OF PLANNING STANDARD FUNCTION should be assessed (i.e., a white finding).

Criteria

The licensee has failed to correct WEAKNESSES in drill/exercise performance, in areas not covered by the DEP PI, as indicated by failure rate greater than 20%.

Failure to correct WEAKNESSES associated with a RSPS should be assessed as a functional failure of PS 50.47(b)(14), (i.e., a white finding). Other failures to correct WEAKNESSES would be no greater than green.

Considerations

If corrective actions are aggressive and appear to be complete, but are still not effective, a judgement may be made to allow more time for performance improvement. In this case, future drills are expected to show performance improvement. Enhancement or improvement items are not intended for consideration under the EP SDP.

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Emergency Preparedness Significance Determination Process
Failure to Comply
Sheet 1

Emergency Preparedness Significance Determination Process
Actual Event Implementation Problem
Sheet 2